

WHAT IS CLAIMED IS:

*Sub  
Pd*

1. An imaging sensor which includes:  
a sensor array segmented into plural  
disjoint segments;  
a respective plurality of output pipelines,  
one of said output pipelines corresponding to each  
of said plural segments of the sensor array; and  
means for duplicating image data for an  
overlap region at each boundary between segments.

2. An imaging sensor according to Claim 1,  
wherein said means for duplicating image data  
comprises charge or voltage duplicating circuitry  
that obtains multiple outputs for each pixel in the  
overlap region, and wherein said duplication  
circuitry provides each of the multiple outputs to  
individual ones of said output pipelines that border  
on the overlap region.

3. An imaging sensor according to Claim 1,  
further comprising a respective plurality of  
processors, each processor coupled to a respective  
one of the output pipelines, and wherein said means  
for duplicating includes an output pipeline for  
outputting pixel values of pixels in the overlap  
region to an intermediate buffer, the intermediate  
buffer providing duplicate pixel values to each  
processor whose segment borders the overlap region.

4. An imaging sensor according to Claim 3,  
wherein the intermediate buffer is provided off-chip  
from the sensor array.

5. An imaging sensor according to Claim 1,  
further comprising a respective plurality of  
processors, each processor coupled to a respective

one of the output pipelines, and wherein said means for duplicating comprises a communication link between processors that border the overlap region, and wherein duplicate pixels are communicated between processors over the communication link.

6. A method in an imaging sensor which includes a sensor array segmented into plural disjoint segments including at least a first segment and a second segment separated by a boundary, the method comprising the step of duplicating image data for an overlap region at the boundary.

7. A method according to Claim 6, wherein said step of duplicating image data further comprises the steps of:

storing charges or voltages from a non-overlap region of the first segment into a output pipeline;

storing charges or voltages from the overlap region of the first segment and the second segment into the output pipeline; and

providing charges or voltages from the output pipeline to a processor.

8. A method according to Claim 6, wherein said step of duplicating image data further comprises the steps of:

storing charges or voltages from a non-overlap region of the first segment into a pipeline;

sending charges or voltages from the overlap region of the first segment and the second segment to a shift out line;

storing charges or voltages from the shift out line to an intermediate buffer; and

providing charges or voltages from the pipeline and from the intermediate buffer to a processor.

5           9. A method according to Claim 8, wherein  
the intermediate buffer is provided off-chip from  
the sensor array.

10          10. A method according to Claim 6, wherein  
said step of duplicating image data further  
comprises the steps of:

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*cont*  
storing charges or voltages from the first  
segment into a pipeline;

15          providing charges or voltages from the  
pipeline to a first processor, the first processor  
for processing pixel data for the first segment; and

20          communicating pixel data for the overlap  
region between the first processor and a second  
processor, the second processor for processing pixel  
data for the second segment.